

Amendments to the Drawings:

None

REMARKS/ARGUMENTS

Claims 16-20 stand rejected under 35 U.S.C. 102(b) as being anticipated by Downey.

Claim 16 comprises the limitations of implanting at least a halogen species within an at least partially formed semiconductor device to form at least one amorphous region; doping at least a portion of the at least one amorphous region to form at least one junction within the at least partially formed semiconductor device; and activating the doped portion of the at least one amorphous region of the at least partially formed semiconductor device by solid phase epitaxial re-growth.

The invention as claimed in claim 16 requires the implanted halogen species to form at least one amorphous region. In other words the amorphous is formed using the halogen species. This is an element of the claimed invention. It is therefore not immaterial as the examiner states, "whether the halogen ion implantation is done in into crystalline region or amorphous region." The claim requires that the amorphous region be formed by implanting the halogen species. This is to be compared with the Downey reference that carefully distinguishes between implanting fluorine into an amorphous region and forming the amorphous region. In the office action dated 5/6/2004, the examiner emphasizes this point by carefully stating that "fluorine ions are implanted into amorphous region of the semiconductor, wherein amorphous region resulted from boron implantation (see col.3, lines 1-6)." Applicant agrees with the examiner on this point and therefore all the limitations of claim 16 are not contained in the Downey reference. The Downey reference is not a valid 102(b) reference and claim 16 is allowable over the cited art.

With regard to the Kato reference, the examiner again carefully explains that chlorine is implanted into amorphous regions since Kato teaches chlorine ions are implanted after the implantation of dopant ions. This is different from the claimed limitation of forming a amorphous region using the halogen implantation process. From

the above discussion, all the limitations of claim 16 are not contained in the Kato reference. The Kato reference is not a valid 102(b) reference and claim 16 is allowable over the cited art.

In light of the above, it is respectfully submitted that the present application is in condition for allowance, and notice to that effect is respectfully requested.

While it is believed that the instant amendment places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned in order to expeditiously resolve any outstanding issues.

To the extent necessary, Applicant petitions for an Extension of Time under 37 CFR 1.136. Please charge any fees in connection with the filing of this paper, including extension of time fees, to the deposit account of Texas Instruments Incorporated, Account No. 20-0668.

 Respectfully submitted,
Peter K. McLarty
Attorney for Applicant
Reg. No. 44,923

Texas Instruments Incorporated
P.O. Box 655474, MS 3999
Dallas, TX 75265
(972) 917-4258